1.0 - GENERAL

1.01 THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND VERIFYING ALL DIMENSIONS IN THE FIELD PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL IMMEDIATELY REPORT ANY DISCREPANCY TO THE ARCHITECT AND ENGINEER.

1.02 THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING IN THE FIELD THE EXISTENCE AND LOCATION OF OVERHEAD, BURIED AND/OR EMBEDDED UTILITIES, AND DETERMINING LOCATIONS OF ALL EMBEDDED MECHANICAL, ELECTRICAL AND PLUMBING SYSTEMS AFFECTED BY THE WORK OF THIS CONTRACT.

1.03 ALL WORK IS TO CONFORM WITH THE FOLLOWING CODES AND STANDARDS:

(A) "780 CMR: MASSACHUSETTS AMENDMENTS" - 9TH EDITION (MSBC)
(B) INTERNATIONAL BUILDING CODE, (IBC 2009)
(C) "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" - AMERICAN CONCRETE INSTITUTE (ACI 318)
(D) "MANUAL OF STEEL CONSTRUCTION" - AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC 360)
(E) "STRUCTURAL WELDING CODE - STEEL" - AMERICAN WELDING SOCIETY (AWS D1.1-92)
(F) "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES" - AMERICAN SOCIETY OF CIVIL ENGINEERS, (ASCE 7)

1.04 THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND ENGINEER OF UNANTICIPATED CONDITIONS THAT MAY BE UNCOVERED DURING DEMOLITION AND CONSTRUCTION.

1.05 THE CONTRACTOR SHALL DESIGN AND PROVIDE ALL REQUIRED SHORING AND TEMPORARY BRACING TO RESIST FORCES ON THE STRUCTURE THROUGHOUT THE CONSTRUCTION PERIOD. SHORING AND TEMPORARY BRACING DESIGN SHALL BE PERFORMED UNDER THE SUPERVISION OF A PROFESSIONAL ENGINEER REGISTERED IN MASSACHUSETTS. SUBMIT STAMPED CALCULATIONS AND SHOP DRAWINGS FOR APPROVAL.

2.0 - CAST IN PLACE CONCRETE

2.01 CONCRETE WORK SHALL CONFORM TO "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318-05) AND "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" (ACI 301).

2.02 CONCRETE SHALL BE CONTROLLED CONCRETE, PROPORTIONED, MIXED AND PLACED IN THE PRESENCE OF A REPRESENTATIVE OF AN APPROVED TESTING AGENCY.

2.03 UNLESS NOTED OTHERWISE, CONCRETE SHALL BE NORMAL WEIGHT AND HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH AS FOLLOWS:

(A) ALL STRUCTURAL CONCRETE: 4000 PSI

2.04 NON-SHRINK, NON-METALLIC, GROUT SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 7,500 PSI (ASTM C942) AND A MINIMUM BOND STRENGTH OF 2,000 PSI AT 28-DAYS (ASTM C882). GROUT MAY BE EXTENDED WITH COARSE AGGREGATE PER THE MANUFACTURER'S RECOMMENDATIONS.

3.0 - CAST IN PLACE CONCRETE REINFORCEMENT

3.01 REINFORCEMENT DETAILING, FABRICATION, AND ERECTION SHALL CONFORM TO "ACI DETAILING MANUAL" - SP-66, "CRSI MANUAL OF STANDARD PRACTICE".

3.02 STEEL REINFORCEMENT, UNLESS NOTED OTHERWISE, SHALL CONFORM TO THE FOLLOWING:

(A) BARS, TIES, AND STIRRUPS___ASTM A615 GRADE 60

3.03 REINFORCING STEEL SHALL BE UNCOATED AND DEFORMED.

3.04 MINIMUM CONCRETE PROTECTIVE COVERING FOR REINFORCEMENT, UNLESS REQUIRED FOR FIRE PROTECTION OR NOTED OTHERWISE, SHALL BE AS FOLLOWS:

(A) CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH:____3"
(B) CONCRETE EXPOSED TO EARTH OR WEATHER:
(1) NO. 5 BAR, W31 OR D31 WIRE AND SMALLER____2"
(C) SURFACES NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:
(1) SLABS, WALLS, JOISTS:
(a) NO. 11 BARS AND SMALLER____2"

3.05 NOTIFY THE TESTING LAB AND ENGINEER A MINIMUM OF 48 HOURS PRIOR TO SCHEDULED CONCRETE PLACEMENT IN ORDER TO ACCOMMODATE INSPECTION OF REINFORCEMENT AND CONCRETE TESTING. NO CONCRETE SHALL BE PLACED WITHIN 48 HOURS OF SUCH NOTIFICATION.

4.0 - POST INSTALLED CONCRETE ANCHORS AND REINFORCING DOWELS

4.01 ADHESIVE ANCHORS AND REINFORCING DOWELS SHALL BE HILTI HIT-HY-200 ADHESIVE ANCHORING SYSTEM.

4.02 EXPANSION ANCHORS SHALL BE HILTI KWIK BOLT TZ EXPANSION ANCHORS.

4.03 INSTALL ANCHORS IN STRICT CONFORMANCE WITH THE MANUFACTURER'S REQUIREMENTS.

4.04 HOLES SHALL BE THOROUGHLY CLEANED AND DRY PRIOR TO INSTALLING ANCHORS.

4.05 DO NOT DAMAGE EXISTING REINFORCING. LOCATE REINFORCING WITH PROFOMETER OR OTHER MEANS PRIOR TO DRILLING CONCRETE.

4.06 ANCHORS INSTALLED OVERHEAD SHALL BE PROOF TESTED BY THE MANUFACTURER'S FIELD ENGINEER OR OTHER APPROVED AGENCY. PROOF TEST A MINIMUM OF 25% OF THE ANCHORS OR (2) TOTAL, WHICHEVER IS GREATER.

6.0 - STRUCTURAL STEEL

6.01 STRUCTURAL STEEL DESIGN, FABRICATION AND ERECTION SHALL CONFORM TO THE AISC "MANUAL OF STEEL CONSTRUCTION", STEEL BUILDING AND BRIDGES" (AISC MARCH 18, 2005).

6.02 STRUCTURAL STEEL SHALL BE NEW STEEL CONFORMING TO THE FOLLOWING:

(A) WIDE FLANGE SHAPES:_____ASTM A992
(B) OTHER STEEL SHAPES, PLATES AND BARS:_____ASTM A572 OR ASTM A36.

6.03 ALL WELDED CONNECTIONS SHALL BE MADE BY APPROVED CERTIFIED WELDERS AND SHALL CONFORM TO A.W.S. SPECIFICATIONS AMENDED TO DATE. ELECTRODES SHALL BE E70XX.

6.04 BOLTS SHALL CONFORM TO ASTM A325 AND BE INSTALLED SNUG-TIGHT UNLESS NOTED OTHERWISE

6.05 ANCHOR RODS SHALL CONFORM TO ASTM F1554 Gr. 36.

6.05 STRUCTURAL STEEL FRAMING SHALL BE WITHIN TOLERANCE BEFORE CONNECTIONS ARE FINALLY BOLTED OR WELDED.

6.06 FIELD CUTTING OF STRUCTURAL STEEL OR ANY FIELD MODIFICATIONS OF STRUCTURAL STEEL SHALL NOT BE MADE WITHOUT PRIOR WRITTEN APPROVAL BY THE ENGINEER FOR EACH SPECIFIC USE.

6.07 WELDS SHALL BE 3/16" FILLET WELDS MINIMUM UNLESS NOTED OTHERWISE ON THE DRAWINGS.

6.08 STRUCTURAL STEEL SHALL BE SHOP PRIMED

6.09 SUBMIT SHOP DRAWINGS AND PRODUCT DATA FOR APPROVAL PRIOR TO FABRICATION.

7.0 DESIGN LOADS

LOADS, LOADING CONDITIONS AND COMBINATIONS SHALL BE IN ACCORDANCE WITH THE MASSACHUSETTS STATE BUILDING CODE 9TH EDITION, IBC 2015 AND ASCE 7 AS APPLICABLE. LOADS DESIGNATED BY "PSF" ARE UNIFORM LOADS, THOSE DESIGNATED BY "LB" ARE CONCENTRATED LOADINGS AND SHALL BE APPLIED AS REQUIRED BY THE MSBC.

BUILDING OCCUPANCY CATEGORY II

7.01 DEAD LOADS
(A) SELF-WEIGHT OF FRAMING, AND ALL ATTACHED AND SUSPENDED ELEMENTS

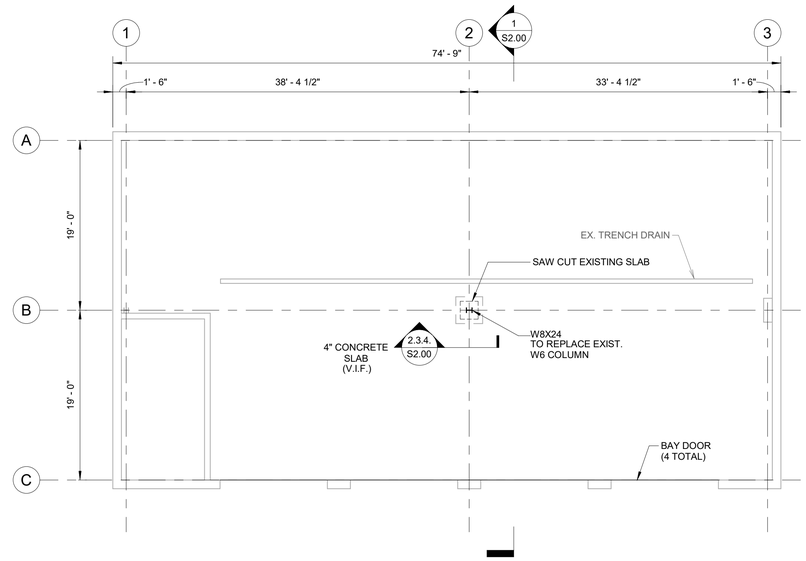
7.02 LIVE LOADS

(B) ROOF LIVE LOADS___20 PSF, 300 LB

7.03 ROOF SNOW LOAD
(A) GROUND SNOW LOAD, PG___60 PSF
(B) MIN. FLAT ROOF SNOW LOAD, PF___35 PSF
(C) SNOW EXPOSURE FACTOR, CE___1.0
(D) SNOW LOAD IMPORTANCE FACTOR, I___1.0
(E) THERMAL FACTOR, CT___1.0

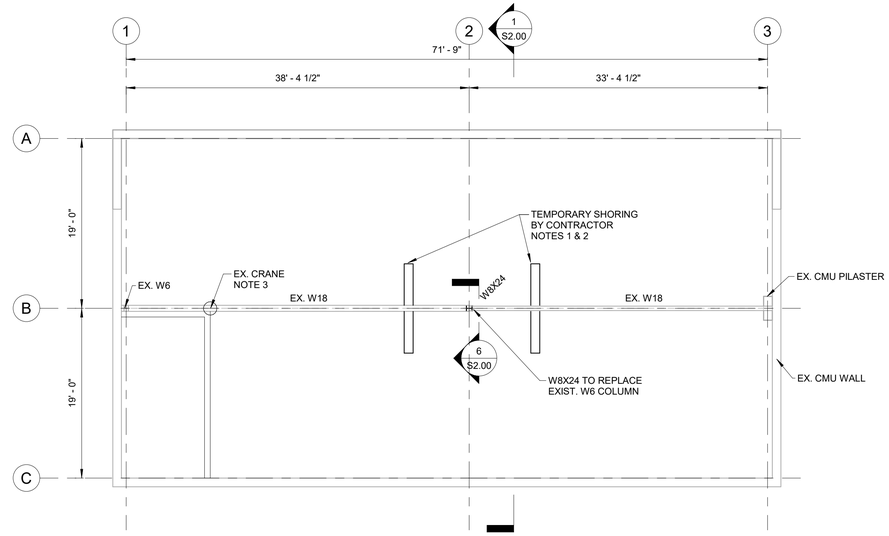
7.04 WIND DESIGN DATA
(A) BASIC WIND SPEED, V___118 MPH
(B) WIND IMPORTANCE FACTOR, I__1.0
(C) WIND EXPOSURE____B

7.05 EARTHQUAKE DESIGN DATA
(A) SEISMIC IMPORTANCE FACTOR, I____1.0
(B) MAPPED SPECTRAL RESPONSE ACCELERATIONS, SS___0.2, S1___0.071
(C) SITE CLASS____D



1 SLAB PLAN
SCALE: 1/8" = 1'-0"

3 EXISTING CRANE



2 ROOF FRAMING PLAN
SCALE: 1/8" = 1'-0"

NOTES:
1. PROVIDE SHORING ON EACH SIDE AS CLOSE AS PRACTICAL TO EXISTING COLUMN
2. SHORING LOAD MIN 25 KIP EACH SIDE OF EXISTING COLUMN
3. CONTRACTOR TO REMOVE CRANE AND STORE IN LOCATION SELECTED BY THE OWNER (SEE PHOTO)
4. PAINT NEW STEEL COMPONENTS USING 2 COATS OF TNEMEC L69F EPOXOLINE II OR APPROVED EQUAL. APPLY PER MANUFACTURER'S RECOMMENDATIONS.

NORTH

Project:

Town of Ashburnham

Ashburnham DPW Column Repair

Weston & Sampson
100 Foxborough Boulevard Suite 250
Foxborough, MA 02035
(508) 698.3034 (800) SAMPSON
www.westonandsampson.com

Consultants:

COMMONWEALTH OF MASSACHUSETTS
NATHAN M. SEIFERT
STRUCTURAL
No. 41693
REGISTERED PROFESSIONAL ENGINEER
9/22/2021

REVISIONS:

REV	DATE	DESCRIPTION

Issued For:

BID

Date: 9/22/2021

Scale: AS NOTED

Drawn By: EAS

Reviewed By: EP

Approved By: NMS

W&S Project No: ENG21-0902

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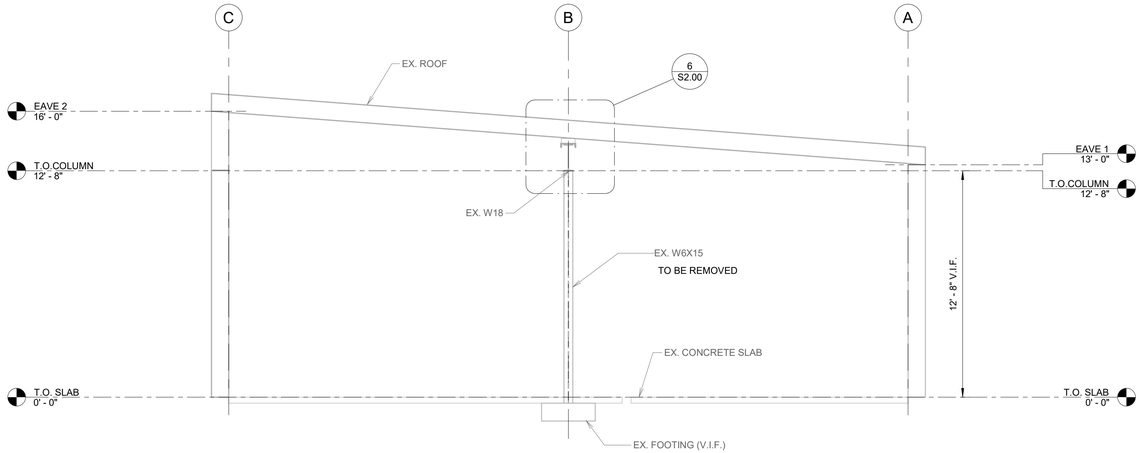
GENERAL NOTES & PLANS

Sheet Number:

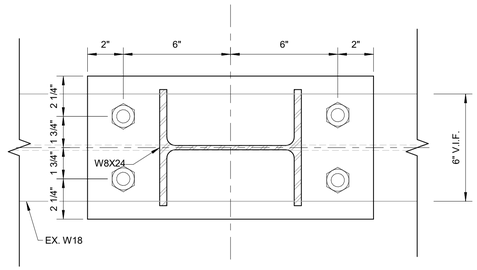
S1.00



1 EXISTING INTERIOR ELEVATION

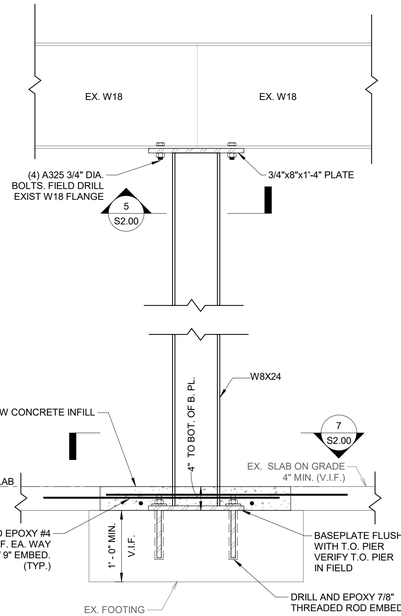
SCALE: 1/4" = 1'-0"

NOTE(S):
1. DEMO SLAB TO VERIFY SIZE AND DEPTH OF EXISTING PIER/FOOTING.



5 COLUMN TO BEAM CONNECTIION

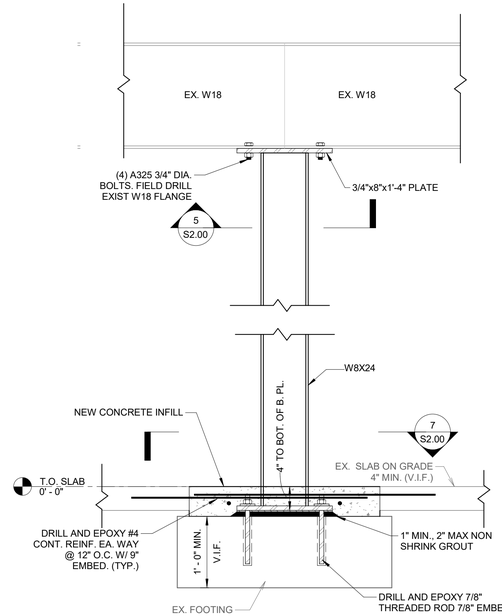
SCALE: 3" = 1'-0"



TOP OF EXISTING PIER/FOOTING AT BOTTOM OF EXISTING SLAB

2 ALTERNATE 1

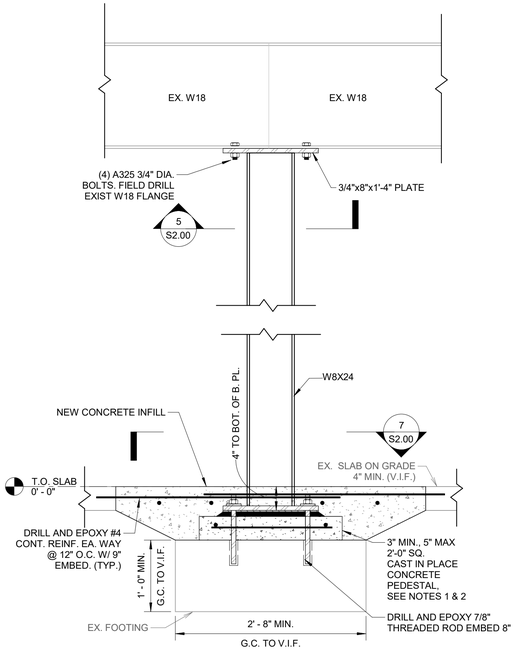
SCALE: 1" = 1'-0"



TOP OF EXISTING PIER/FOOTING 2" MAX. BELOW EXISTING SLAB

3 ALTERNATE 2

SCALE: 1" = 1'-0"



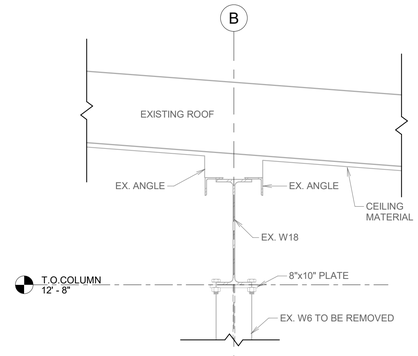
TOP OF EXISTING PIER/FOOTING MORE THAN 2" AND LESS THAN OR EQUAL TO 5" BELOW EXISTING SLAB

NOTE(S):
1. FORM AND POUR NEW PIER W/ (2) #4 REINF. EA. WAY
2. NOTIFY ENGINEER IF REQUIRED PEDESTAL DEPTH IS GREATER THAN 5 INCHES.

4 ALTERNATE 3

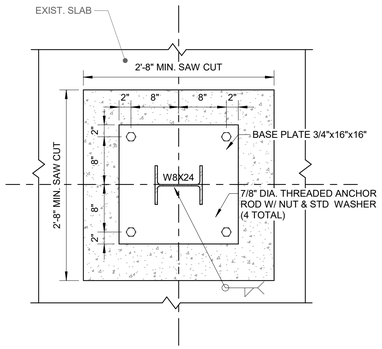
SCALE: 1" = 1'-0"

NOTES:
1. CONTRACTOR SHALL CARRY COSTS TO INSTALL NEW COLUMN FOR ANY ALTERNATE CONDITIONS IN BASE BID.
2. PAINT STRUCTURAL STEEL ENCASED IN CONCRETE WITH APPROVED PAINT SYSTEM.



6 EXISTING T.O. COLUMN CONDITIONS

SCALE: 1" = 1'-0"



7 BASE PLATE TO FOOTING CONNECTION

SCALE: 1" = 1'-0"

Project:

Town of Ashburnham

Ashburnham DPW Column Repair

17 Central Street Ashburnham, MA

Weston & Sampson

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PLAN VIEWS & DETAILS

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